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(54) Call admission control method and cell flow monitoring method in the same method.

(57) In a network in which all of information from terminals (1, 2, ...) having various traffic characteristics are transmitted/switched by a fixed length block including a virtual channel id, a terminal (1) requesting communication declares destination address information and traffic characteristics of the requested communication upon set-up to a network (15). The exchange (15) in the network expresses traffic characteristics of an individual terminal j and an offered load (estimated cell flow) in the network as follows. That is, the traffic characteristics of each terminal j are expressed as a maximum cell flow a(j,i) (i = 1, 2, ..., n) generated from the terminal in time units Δt(i) (i = 1, 2, ..., n) having n predetermined lengths. The predicted offered load of the line supposing that a new request call is accepted is expressed as an estimated cell flow $A'(i)$ (i = 1, 2, ..., n) predicted to be transmitted to the line in the time unit Δt(i) by using traffic characteristic values a(j,i) (i = 1, 2, ..., n and j = 1, 2, ..., k, k+1) of the calls j (j = 1, 2, ..., k) currently transitting on the line and a new request call k+1. In a call admission control method, the estimated cell flow $A'(i)$ is compared with an admissible maximum allowable cell flow of line $A_{max(i)}$ obtained from a circuit capacity, thereby determining "accept" or "reject" of admission of the request call. In a cell flow monitoring method, a cell flow generated from a terminal j in time units Δt(i) (i = 1, 2, ..., n) having a plurality of lengths is counted in a plurality of time units Δt(i). If a cell flow in any one time unit Δt(i) exceeds a traffic characteristic value a(j,i) grasped beforehand by a network, "violation" is determined for the terminal j, and a regulation sequence is performed.

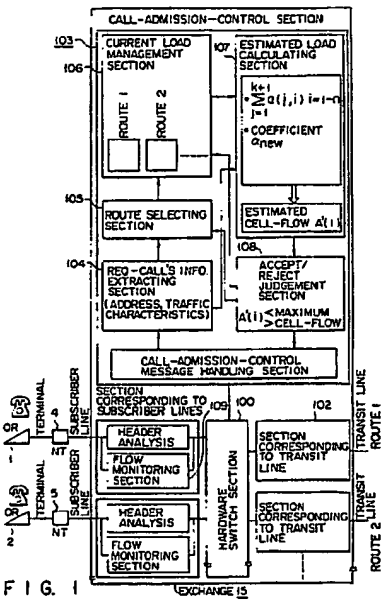

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number

EP 90 30 1910

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	CONFERENCE RECORD OF THE IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE AND EXHIBTION, Hollywood, Florida, 28th November - 1st December 1988, vol. 1, pages 7.1.1 - 7.1.5; G.M. WOODRUFF et al.: "A congestion control framework for high-speed integrated packetized transport" * Page 7.1.2, section 3 - page 7.1.3, section 3.1.2; page 7.1.3, section 4 - page 7.1.4, section 4.2 *	1-3	H 04 L 12/56
X	PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON SUBSCRIBER LOOPS AND SERVICES, Boston, MA, 11th - 16th September 1988, pages 12.2.1 - 12.2.6; W. KOWALK et al.: "The "policing function" to control user access in ATM networks" * Section 4, pages 12.2.4 - 12.2.6 *	3	
A	US-A-4 611 322 (LARSON et al.) * Abstract; figure 1; column 9, line 16 - column 10, line 51 *	1,2	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			H 04 L

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	02 August 91	ALI A.M.A.Y.

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone
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